In the Claims:

1. (First Amendment) A method of producing a glass product comprising forming a glass batch by admixing an amount of a boron compound, an amount of a calcium magnesium silicate compound, wherein the calcium magnesium silicate has an empirical formula of $Ca_xMg_ySiO_z$, and the values of x and y are independently from about 0.1 to about 0.6 and z is a value to balance the oxidation state of the compound, an optional amount of a magnesium oxide compound, wherein the amount of said magnesium oxide compound is about zero, and an amount of other glass components to produce said formed glass batch; then melting and refining said formed glass batch to produce a glass composition; and finally forming from said glass composition a glass product.

A6

Please cancel Claims 2 and 3.

REMARKS

Claims 1-9 were originally filed. Claims 1-9 are pending in this application. Claims 1, 2 and 4-9 are rejected and Claim 3 objected to. Claim 1 has been Amended. Claims 2 and 3 have been canceled. Claims 1 and 4-9 are now before Examiner.

35 U.S.C. § 112, second paragraph

Examiner rejected Claims 1-9 under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Examiner states that "Claim 1 appears to be a vague listing of various elements in forming a glass batch. Moreover, claim 1 refers to 'other glass components' which is deemed indefinite."

Applicant has Amended Claim 1 by incorporating into it Claim 4 thereby more clearly defining the scope of the claim. Support for this Amendment can be found at page 4, line 19 to page 5, line 2 of the Specification.

Examiner states "Claim 3 refers to a 'z' value but there is no 'z' present in the formula."

There was a typographical error that was amended in both the Specification and Claims. One of ordinary skill in the art would understand calcium magnesium silicate to have the chemical formula $Ca_xMg_ySiO_z$ with "z" being a value to balance the oxidation state of the compound. Support for this Amendment can be found at page 5, line 8 of the Specification.

Examiner states "Claims 5 and 6 refer to 'said second glass batch ' and 'said comparative composition' which lack antecedent basis."

Applicant has Amended Claim 1 to more clearly define the scope of the claim. The phrase "said second glass batch" and "said comparative composition" now have antecedent basis and are in condition for allowance. Support for this Amendment can be found at page 4, line 19 to page 5, line 2 of the Specification.

Applicant has Amended Claim1 by merging Claims 2 and 3 with Claim 1. Claim 3 was objected to as depending from a rejected claim and Claim 3's subject matter was indicated allowable.

By merging these claims, the rejection over Claim 1 is overcome and all claims are believed to be in condition for allowance. An early notice to that effect would be appreciated. Should Examiner not agree with Applicant's position, then a personal or telephonic interview is respectfully requested to discuss any remaining issues and expedite the eventual allowance of the application.

No fees are believed due for the filing of this Amendment. However, please charge any fees that might be applicable to Minerals technologies Inc. Deposit Account No. 13-3639.

Respectfully submitted,

Date 9/23/02

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Version With Markings Showing Changes Made

In the Specification:

Replace paragraph 2, at page 1, under **BACKGROUND** with:

In many borosilicate glass production methods, such as that for making fiberglass, lighting glass and others, a magnesium oxide component is added to the glass batch to reduce the requirement of boron oxide. A typical experience is that a reduction of up to about half of the boron oxide component of the glass batch can be achieved by the addition of magnesium oxide. While this solves one aspect of the glass production, it can on occasion result in production problems. One problem is that the formed glass batch melts slower, has increased batch-free times or requires greater production temperatures than a batch formed with boron oxide alone. The problems result in techinical and economics barriers to the substitution of magnesium oxide for boron oxides in glass batches. There remains a need for improved compositions and production methods which permit the reduction of the required amounts of boron oxides.

Replace paragraph 1, at page 3, under **SUMMARY** with:

An objective of the present invention is the reduction of the requirement of boron oxide in glass compositions. Another objective is the replacement of boron oxide in glass batches with magnesium oxides and other glass making components. Yet another objective is the reduction of operating time for for batch-free compositions and/or the reduction of refining temperatures in producing boron oxide or equivalent compositions. These and other[s objects] objectives are achieved by a methos of producing a glass batch comprising admixing boron oxide, magnesium oxide, a calcium magnesium silicate, and other glass making components to produce a glass batch and then melting, refining and forming a glass product. In one embodiment, the magnesium oxide component is eliminated.

Replace the first full paragraph at page 5, with:

The calcium magnesium silicate of the present invention can be a natural resource or one attained by synthetic production. A preferred calcium magnesium compound is that described in U.S. Patent No. 6,211,103 B1. A more preferred calcium magnesium silicate has an empirical formula of $Ca_xMg_ySiO_{[x]\,z}$ and the values of x and y are independently from about 0.1 to about 0.6 and z is a value to balance the oxidation state of the compound.

Replace the second full paragraph at page 5, with:

An advantage of the present invention is that the refining batch-free time of said formed glass batch is at least twenty-five percent less than that of a second glass batch of a comparative composition. A further advantage is that the temperature for refining [of] the formed glass batch using the present invention is at least 50 degrees Centigrade less than that required for a comparative composition using know methods to produce[d] an equivalent batch-free time. In a preferred method the batch-free time is equivalent to or less than the batch-free time of an equivalent composition produces with less magnesium oxide. An alternative advantage is that the temperature for refining is quivalent to or less than the temperature for refining of an equivalent composition produced with less magnesium oxide. A preferred application is use of the present inventive method to produce a glass product which is continuous strand fiberglass.

Replace the first paragraph at page 6, under **Example** with:

A glass batch for E-type fiberglass is formed in which dolomite or dolomitic lime, as a source of MgO, is added to reduce[d] the amount of borax, as a source of B_2O_3, to attain s set of measured values for chemical durability. A second batch is formed identical in composition except that an amount of calcium magnesium silicate is substituted for an amount of the dolomite or dolomitic lime. The calcium magnesium silicate is Synsil® silicate, from Sunsil Products Inc., and has the following composition:

In the Claims:

1. (First Amendment) A method of producing a glass product comprising forming a glass batch by admixing an amount of a boron compound, an amount of a calcium magnesium silicate compound, wherein the calcium magnesium silicate has an empirical formula of $Ca_xMg_ySiO_z$, and the values of x and y are independently from about 0.1 to about 0.6 and z is a value to balance the oxidation state of the compound, an optional amount of a magnesium oxide compound, wherein the amount of said magnesium oxide compound is about zero, and an amount of other glass components to produce said formed glass batch; then melting and refining said formed glass batch to produce a glass composition; and finally forming from said glass composition a glass product.